

Application No.: 10/763,546
Amendment dated: September 15, 2004
Reply to Office Action of June 15, 2004
Attorney Docket No.: 1002.02.div

b.) Remarks

Claims 1-10 are pending in this application. Claims 1, 2, 4, 7, and 9 have been amended in various particulars.

The only outstanding issue was a rejection of claims 1-4, 6, and 8-10 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,818,585 to Davis, *et al.* In a related rejection, claims 5 and 7 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Davis, *et al.* patent. These rejections are respectfully traversed for the following reasons.

The Davis, *et al.* patent is directed to a fiber Bragg grating interrogation system. It comprises an "E-LED 10," which is analogous to the claimed superluminescent light emitting diode. In contradistinction, this E-LED 10 is used to illuminate fiber Bragg gratings 20 via a coupler 25, however. The signal is then filtered by a fiber Fabry-Perot tunable filter 30 and then detected by the detector 50.

A number of distinctions exist between the pending claims and the Davis system. First, claim 1 requires that the broadband superluminescent light emitting diode and tunable filter are found in a common hermetic package. The Davis, *et al.* system would not be integrated in such a package since it is uncommon to install diodes in the same hermetic package with a fiber Fabry-Perot filter. Further, FIG. 1 of Davis suggests that they are not installed together, note the dotted line box.

Claim 4 requires an isolator between the SLED source and the tunable filter. This isolator was analogized to the Davis coupler 25. Couplers, however, are not isolators. Instead, they simply couple optical energy between the fibers 15 and 16 and the Fabry-Perot tunable filter. In contrast, the claimed isolator prevents backreflections from the tunable filter from disturbing the broadband source in the present claimed invention.

Claim 7 is directed to the combination of a SLED and the MEMS Fabry-Perot tunable filter.

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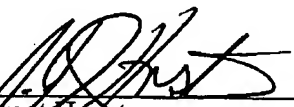
In contradistinction, the Davis *et al.* patent teaches the use of a fiber Fabry-Perot tunable filter. Nothing suggests the use of the claimed MEMS Fabry-Perot filter.

Finally, claim 9 further includes an optical bench on which the SLED and tunable filter are installed. The Davis *et al.* patent does not show the use of a bench. This has an advantage in that it allows for a very compact system.

The foregoing reasons, applicants believe that the pending claims are patentable distinguishable over the applied references.

Applicants believe that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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